

ABRUMOVA, Zh.I.---(continued) Card 2.

CHERNOV, V.A., doktor med. nauk; SHADURSKIY, K.S., prof.;
YAKOVLEV, V.Ya., doktor khim. nauk; MASHKOVSKIY, M.D., red.;
NIKOLAYEVA, M.M., red.; RULEVA, M.S., tekhn. red.; CHUMAYEVA,
Z.V., tekhn. red.

[Manual on pharmacology] Rukovodstvo po farmakologii. Leningrad,
Medgiz. Vol.2. 1961. 503 p. (MIRA 15:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Anichkov, Karasik, Cherkes). 2. Chlen-korrespondent Akademii medi-
tsinskikh nauk SSSR (for Belen'kiy, Ginetsinskiy, Moshkovskiy,
Planel'yes).

(PHARMACOLOGY)

PERSHIN, Grigoriy Nikaleyevich; GVOZDEVA, Yelena Ivanovna; MENTOVA, V.N.,
red.; KUZ'MINA, N.S., tekhn. red.

[Textbook in pharmacology] Uchebnik farmakologii. Moskva, Gos.
izd-vo med. lit-ry Medgiz, 1961. 402 p. (MIRA 14:7)
(PHARMACOLOGY)

"

MAKEYEVA, O. O., kand. med. nauk; PERSHIN, G. N., prof.

Comparative study on the chemotherapeutic activities of isonicotinic acid hydrazide and its derivatives in experimental tuberculosis.
Probl. tub. no.7:86-93 '61. (MIRA 14:12)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S. Ordzhonikidze (dir. - prof. M. V. Rubtsov)

(TUBERCULOSIS) (ISONICOTINIC ACID)

PERSHIN, G.N.; ZYKOVA, T.N.

Chemotherapeutic effectiveness of ethoxide in tuberculosis. Med.
pracm. 15 no. 4:28-32 Ap '61. (MIRA 14:4)

I. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(CARBANILIDE) (TUBERCULOSIS)

PERSEIN, G.N.; ZYKOVA, T.N.

Beransk (Bepask). Med. prom. 15 no. 4:32-34 Ap '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(SALICYLIC ACID)

PEPSMIN, G.N.

Current status of and prospects for preparing drugs to treat
cardiovascular diseases. Med. prom. 15 no.7:3-10 J1 '61.
(MIRA 15:6)
(CARDIOVASCULAR AGENTS)

PERSHIN, G.N.; BOGDANOVA, N.S.; ZNAYEVA, K.I.; KRAFT, M.Ya.

Some regularities in the suppression of influenza virus multiplication by synthetic compounds. Farm. i toks. 24 no.6:690-695 N-D '61.
(MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(INFLUENZA—MICROBIOLOGY)

GUNAR, V.I.; ZAV'YALOV, S.I.; PERSHIN, G.N.; MILOVANOVA, S.N.;
BOGDANOVA, N.S.; MAKEYEVA, O.O.; KROTOV, A.I.

β -Dicarbonyl compounds. Part 14: Synthesis, transformations,
and biological activity of 2-prehmyldihydroresorcinol. Zhur.
ob.khim. 31 no.12:3975-3984 D '61. (MIRA 15:2)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN
SSSR; Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farma-
tsevticheskiy institut imeni S.Ordzhonikidze i Institut
malyarii, meditsinskoy parazitologii i gel'mintologii.
(Resorcinol)

PERSHIN, G.N.; NOVITSKAYA, N.A.; GRUSHINA, A.A.

Potentiation of the effect of diethylstilbestrol on the mammary gland in rabbits under the influence of 3-methyl-5-phenylpyrazole (phemorazole). Biul. eksp. biol. i med. 51 no.5:74-76 My '61.
(MIRA 14:8)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S. Ordzhonikidze (dir. - prof. M.V. Rubtsov),
Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR G.V.

Vygodchikovym.

(PYRAZOLE)

(BREAST)

(STILBENEDIOL)

PERSHIN, G.N.; SICHLERBAKOVA, L.I.

Mechanism of the action of 6-mercaptopurine. Farm. i toz. 25 no.1:
19-24 Ja-F '62. (MIL 15'4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(PURINES)

PENSHIN, G.N.; BOGDANOVA, N.S.

Anti-influenzal activity of onium base salts. Farm. i toks.
25 no.2:209-220 Mr-~~A~~p '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut imeni S.Ordzhonikidze.
(INFLUENZA--MICROBIOLOGY)
(ONIUM COMPOUNDS)

MEL'NIKOV, N.N.; KHASKIN, B.A.; SHVETSOVA-SHILOVSKAYA, K.D.; PERSHIN, G.N.;
MILOVANOV, S.N.

Organic insecticides-fungicides. Part 67: Interaction of thio-
and dithiocphosphoric acid esters with higher aliphatic amines and
fungicide and bactericide activity of reaction products. Zhur.-
ob.khim. 32 no.9:28'8-2863 S '62. (MIRA 15:9)

1. Nauchnyy institut po udobreniyam i insektofungitsidam imeni
prof. Ya.V. Samoylova (Moskva).
(Phosphorothioic acid) (Amines) (Fungicides)
(Bactericides)

FROM RIM, 240124Z APR 1968.

REAGAN, GENEVA, SWITZERLAND, 24 APRIL 1968
BRIEFING REPORT. 24 APRIL 1968. PAGES 1-10. 1000 WORDS.
24 APRIL 1968.

1. REAGAN, GENEVA, SWITZERLAND, 24 APRIL 1968. PAGES 1-10. 1000 WORDS.
2. REAGAN, GENEVA, SWITZERLAND, 24 APRIL 1968. PAGES 1-10. 1000 WORDS.

PERSHIN, G.N.

Useful book for physicians and biologists; a review. Farm. i toks.
27 no.1:125 Ja-F '64. (MIR. 17:1)

PERSHIN, G.N.; BELIKOV, G.P.; DANIELYAN, N.M.; KATUNINA, V.I.

Antibacterial and antiviral effect of some lactones and lactams.
Zhur. mikrobiol., epid. i immun. 41 no.3:109-114 Mr '64.

(MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni Ordzhonikidze i TSentral'nyy nauchno-issledovatel'skiy
dezinfektsionnyy institut.

MAKAROV, N.V.; POPOVA, Ye.G.; KLEFT, M.Ya.; BOGDANOVA, N.S.; POLUKHINA, L.M.;
PERSHIN, G.N.

Effect on influenza viruses and synthesis of N-acyl derivatives of
uracil. Farm. i toks. 27 no.1:63-68 Ja-F '64.

(MIRA 1":11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni Ordzhonikidze.

ACC NR: AP6034263 (N) SOURCE CODE: UR/0390/66/029/005/0597/0600

AUTHOR: Kraft, M. Ya.; Katyshkina, V. V.; Pershin, G. N.; Bogdanova, N. S.

ORG: All-Union Scientific Research Chemical and Pharmaceutical Institute im. S. Ordzhonikidze, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut)

TITLE: Cyclic oxocompounds as potential antiviral agents

SOURCE: Farmakologiya i toksikologiya, v. 29, no. 5, 1966, 597-600

TOPIC TAGS: cyclic oxocompound, antivirus agent, drug effect, pharmacology, virus, virology, nucleic acid, protein

ABSTRACT: The antiviral properties of the compounds in Table 1 were determined. These compounds were tested on influenza RR-8 type A virus *in vitro* and *in ovo* in tissue cultures. All possessed antiviral activity *in vitro* and some inhibited viral growth in chick embryo epithelium. These cyclic oxocompounds are highly reactive and are thought to produce their inhibitory activity by acting on viral protein in such a way that the viruses cannot adhere to the cell membranes of sensitive cells. Related compounds have been effective against keratitis infections when applied locally. Quinone derivatives with comparatively low redox po-

Card 1/3

UDC: 615.753.5-017.78+616.988-085.753.5

ACC NR: AP6034263

Table 1. Activity of mono- and bicyclic compounds.

No.	Compound No.	Activity 1% diluted in DMSO	Compound No.	Activity 1% diluted in DMSO																	
I	-	•	II	•	III	•	IV	•	V	•	VI	•	VII	•	VIII	•	IX	•	X	•	
		♦		♦		♦		♦		♦		♦		♦		♦		♦		♦	
		♦♦		♦♦		♦♦		♦♦		♦♦		♦♦		♦♦		♦♦		♦♦		♦♦	
		♦♦♦		♦♦♦		♦♦♦		♦♦♦		♦♦♦		♦♦♦		♦♦♦		♦♦♦		♦♦♦		♦♦♦	
		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦		♦♦♦♦	

Explanation of symbols

- - compound inactive in dilutions of 1:1000;
 ♦ - compound active in dilutions of 1:1000;
 ♦♦ - compound active in dilutions of 1:10000;
 ♦♦♦ - preparation active in dilutions of 1:100000; ♦♦♦♦ - preparation active in dilutions of 1:1000000; ♦♦♦♦♦ - preparation active in dilutions of 1:10000000.

Card 2 / 3

ACC NR AP6034263

Tentials have been discovered to possess good antiviral properties, thus refuting a theory that antiviral activity and high Eh were connected. The compounds involved in the present study were tested more for their effects on amino groups of nucleic acids and proteins with emphasis on their extracellular interference with the virus, and only secondarily for their intracellular effects on reproducing viruses. The object was to find a compound that reacts easily with viral protein but which is comparatively indifferent to the protein of the host cell. The configuration of the molecule of the compound is very important and plays a great role in the specificity of the drug. Little anti-viral activity was displayed by 4-hydroxy-beta-naphthoquinone and its tautomeric form 2-hydroxy-alpha-naphthoquinone. The most effective compound was 7-hydroxy-beta-naphthoquinone. The activities of the other compounds tested are shown in Table 1. The most effective virus neutralizing compounds (no. I, II, III, VIII, XI, and XV) were used in the treatment of pneumonia in white mice, but were not effective. Orig. art. has: 1 table.

[W.A. 50]

SUB CODE: 06/ SUBM DATE: 20Dec65/ ORIG REF: 002/ OTH REF: 005

Card 3/3

PERASHIN, G.N., BOGDANOVA, N.P., MAKIN, S.M.; LIKHACHEV, V.M.

Antiviral activity of 1,6-dihydropyran and
alkoxy- Δ^5 -dihydropyran (cyclic acetals) of glutaric
aldehyde derivatives. Farm. i tehn. 38 n. 1:66-69 Ja-F
1985.
(MIRA 18.12)

1. Vsesoyuznyy nauchno-tekhnicheskiy zhurnal-farmatshevtsko-
tekhnicheskii institut imeni S. Ordzhevskogo i Moskovskiy in-t po
tekhnicheskym tekhnologiyam (edit. M. V. Lomonosov), Moscow.
Submitted September 5, 1983.

POLIKHINA, L.M.; PADEYSKAYA, Ye.N.; ISAMUKHAMEDOV, I., PERSHIN, G.N., prof.

Concentration of sulfamidamides of prolonged action in the blood and cerebrospinal fluid of healthy rabbits and rabbits with experimental pneumococcal meningitis. Farm. i tekh. 18 no. 5: 52-59. - 599 S.O. '65.

I. Laboratoriya khimioterapii infektsionnykh zabolеваний (zav. chlen-korrespondent AMN SSSR prof. G.N.Pershin) Vsesoyuznoe nauchno-issledovatel'skoye khimiko-farmaceuticheskoy institut imeni S.Drazzhnikova, Moscow. Submitted July 9, 1965.

GUNAR, V.I.; OVECHKINA, L.F.; ZAV'YALOV, S.I.; PERSHIN, G.N.; MILOVANOVA,
S.N.

(B) Dicarbonyl compounds. Report No.2: Synthesis and fungistatic
activity of some simplest analogs of the antibiotic griseofulvin.
Izv. AN SSSR. Ser. khim. no.10:1827-1831 O '64.

(MIRA 17:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR i
Vsesoyuznyy nauchno-tekhnicheskiy i obnovatel'skiy khimiko-farmatsevticheskiy
institut im. S. Ordzhonikidze.

"APPROVED FOR RELEASE: 06/15/2000

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APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001240120006-5"

YAKOVLEVA, A.I. (Moskva); SHIKHIREVA, M.V. (Moskva); PERSHIN, G.N. (Moskva);
MOSKALENKO, N.Yu. (Moskva)

Morphological characteristics of a model of cutaneous leisch-
maniasis in white mice. Arkh. pat. 27 no.4:52-57 '65.
(MIRA 18:5)

1. Otdel khimioterapii (zav. - chlen-korrespondent AMN SSSR prof.
G.N.Pershin) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-far-
matsevticheskogo instituta imeni Ordzhonikidze.

PERSVIN, G.N., prof.

A book on modern drug therapy. Farm. i toks. 26 no. 6:758 '63
(MIRA 18:2)

L 55913-6

ACCESSION NO: AP5018312

UR/0243/64/000/008/0047/0049

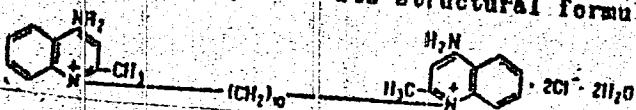
AUTHOR: Pereshin, G. N.; Ariyevich, A. M.; Milovanova, S. N.; Mikerina, A. L.

TITLE: Decamine -- a New preparation

SOURCE: Meditsinskaya promyshlennost' SSSR, no. 8, 1964, 47-49

TOPIC TAGS: drug, chloride, bacterial disease, bacteria, fungue, microorganism, contamination

ABSTRACT: Decamine -- decamethylene-bis-(4-amino)-quinaldine chloride -- was synthesized at the chemicotechnological laboratory of the All-Union Scientific-Research Chemicopharmaceutical Institute imeni S. Ordzhonikidze vy V. A. Zaporozov and T. N. Akif'yeva. Its structural formula is as follows:



Card 1/3

L 55913-65
ACCESSION NR: A15018322

It is a white crystalline powder, odorless, bitter in taste, soluble in water, poorly soluble in alcohol. Investigations established that deca-mine possesses a wide spectrum of action in relation to different bacteria and fungi, including yeast-like organisms. Thus, in a dilution of 1:500,000 it is effective against staphylococci; in a dilution of 1:250,000 — against hemolytic streptococci, typhoid bacillus, Flexner's dysentery bacillus, and various fungi; in a dilution of 1 : 40,000 — against the human tuberculosis bacillus; in dilution of 1:160,000 — against anthracoides spores. It is only slightly effective against pyocyanus and Proteus.

The preparation was clinically tested on 2,000 patients with dermatomycoses, candidiasis, and suppurative affections, with great success. It has been therapeutically effective also against various affections of the oral mucosae.

Orig. art. has: 1 figure.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. D. Ordzhonikidze (All-Union Scientific-Research Chemicopharmaceutical Institute)

Card 2/3

I 55913-65 ACCESSION NO:	AP501832?		
Institute); 'sentral'nyy kozhno-venerologicheskiy institut, Moscow (Central Dermatological and Venerological Institute)			
SUBMITTED:	30May64	ENCL:	00
NR REF Sov:	000	OTHER:	000
Azn Card 3/3			

PERSHIN, G.N.; SHCHERBAKOVA, L.I.

Antimetabolic effect of 5(4)-diazoimidazole-4(5)-carboxamide
and of 2-azahypoxanthine. Farm. i toks. 26 no.6:712-714 '63
(MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut imeni S. Ordzhonikidze.

PERSHIN, G.N.; MUSATOV, N.Ya.

Characteristics of effectiveness of aztreonam in experimental cutaneous leishmaniasis. Farm. i taks. 26 no.169 101 Ja-F '63.

(MIRA 17:7)

I. Vzalyly zdroj nauchno-tekhnicheskoy klinik, farmacevticheskoy institut vmeni S. Drzhinskogo.

PERSHIN, G.N.; NESVAD'BA, V.V.

Study of monamine oxidase activity of mycobacteria B₅. Biul.
eksp. biol. i med. 56 no. 8:80-84 'g '63. (MIRA 17:7)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsev-
ticheskogo instituta imeni S. Ordzhonikidze, Moskva. Predstav-
leno dlya stvitel'nyia chленом AMN SSSR A.V. Lebedinskим.

ISAMUKHAMEDOV, I.; PADEYSEKAYA, Ye. N.; POLUKHINA, L. M.; PERSHIN, G. N.

"The treatment of experimental pneumococcal meningitis with long-acting penicillinamides."

report presented at 4th Int'l Cong, Hungarian Soc of Microbiologists, Budapest,
30 Sep-3 Oct 64.

All-Union Sci Res Chemico Pharmaceutical Inst im Ordzhonikidze, Moscow.

PERSHIN, G.N.

Pharmacological tasks in the light of decisions of the Central Committee of the Communist Party of the Soviet Union and of the Council of Ministers of the U.S.S.R. on measures for the further development of biological sciences and on strengthening their bonds with applied sciences. Farm i toks. 26 no. 42403-405 Jl-Ag'63
(MIRA 1724)

PENSHIN, G.N. & MOSKALENKO, N. Yu.

Chemotherapeutic properties of aminoquinol in cutaneous leishmaniasis in mice. Farm. i toks. 26 no.4 446-452 Jl-Ag'63
(MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsev-ticheskiy institut imeni S. Ordzhonikidze, Moskva.

PERSHIN, G.N., prof.; ZYKOVA, T.N.

Tuberculostatic activity and chemotherapeutic effects of thio-amides of pyridinecarboxylic acid in experimental tuberculosis.
Probl. tub. 40 no. 6:82-88 '62
(MIRA 16:12)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S.Ordzhonikidze.

PERSHIN, G.N., prof.

One out of ten thousand. Zdorov'e 9 no.5:2-3 My'63.

(MIRA 16:9)

1. Chlen-korrespondent AIV SSSR.

(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

PERSHIN G.N., NOVITSKAYA, N.A.

Mechanism of the action of phemeraazole. Uch.zap.Inst.farm.
i khimioter. AMN SSSR 3:98-103'63. (MIRA 16:9)

1. All-Union Scientific-Research Chemopharmaceutic Institute.
(PHEMERAZOLE)

PADENSKAYA, Ye.N.; GRANBERG, I.I.; PERSHIN, G.N.; KOST, A.N.; OVSENEVA, L.G.;
DIN VEY-PY

Study of pyrazoles. Part 27: Synthesis and antibacterial activity
of sulfamylamidopyrazoles. Vest.Mosk.un. Ser.2:Khim. 18 no.1:
69-73 Ja-F '63. (MIRA 16:5)

1. Kafedra organicheskoy khimii Moskovskogo universiteta i
Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.

(Pyrazole)

PERSHIN, G.N.

KAYDIN, D.A.

Effect of epilin on the growth of young rats. Farm. i toks. 24
no.1:105-108 Ja-F '61. (MIRA 14:5)

1. Otdel khimioterapii (zav. - prof. G.N.Pershin) Vsesoyuznogo
nauchno-issledovatel'skogo khimiko-farmatsveticheskogo instituta
imeni S. Ordzhonikidze.
(FUNGICIDES) (HAIR, REMOVAL OF) (GROWTH)

GREBENNIK, L.I.; MAKEYEVA, O.O.

Inactivation of the hydrazide of isonicotinic acid and its derivatives, phthivazide and metazide, in the body of various types of animals.
Khim. i med. no.14:35-38 '60.
(MIRA 14:12)

1. Otdel khimioterapii (zav. - prof. G.N.Pershin) Vsesoyuznogo nauchno-issledovatel'skogo khimio-farmaceuticheskogo instituta imeni S.O. Ordzhonidze.

(PHTHIVAZIDE) (METAZIDE)

(TUBERCULOSIS)

PERSONS:

PERHHIN, G.N.; MAKEYEVA, O.O.; YAKOVLEVA, A.I.

Chemo-therapeutic properties of metazide in experimental tuberculosis
(generalized tuberculosis and tuberculous meningitis). Khim. i med.
no.14:12-23 '60. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S.Ordzhonikidze.
(METAZIDE) (TUBERCULOSIS) (MENINGES--TUBERCULOSIS)

L 35096-6

ACCESSION	NR: AP5009867	UR/0062/64/000/010/1827/1831	12 B
AUTHOR:	G. Nar, V. I.; Ovechkina, L. F.; Zav'yalov, S. I.; Pershin, G. N.; Milovanova, S. N.		
TITLE:	Beta-dicarbonyl compounds. Communication 22. Synthesis and fungistatic activity of some of the simplest analogs of the antibiotic Griseofulvin		
SOURCE:	All SSSR. Izvestiya. Seriya Khimicheskaya, no. 10, 1964, 1827-1831		
TOPIC TAGS:	antibiotic, pharmacology, enter, chlorinated organic compound, alkylation, cyclization, organic synthetic process		
Abstract:	A series of enol esters of dihydroresorcinol, imitating the six-membered hydroaromatic ring of griseofulvin, was studied in an effort to determine the significance of various structural elements of the antibiotic. Enol esters of 2-(3'-chlorobutene-2'-yl)-, 2-(p-chlorobenzyl)-, and 2-(p-bromobenzyl)-dihydroresorcinols were synthesized by alkylation of dihydroresorcinol with the corresponding alkyl chlorides, followed by treatment of the 2-substituted beta-diketones with diazomethane. Internal enol esters belonging to the tetrahydrochromanone series were prepared by cyclization of derivatives of 2-phenyldihydroresorcinol in the presence of phosphoric acid. 5,6,7,8-Tetrahydrochromanone-5 derivatives were produced by a new method of synthesis, based on condensation of		

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L 35096.65

ACCESSION NR: AP5009867

dihydroresorcinol with Mannich ketones, selective reduction of the triketone enolates, followed by cyclization of the hydroxyketoneols. The greatest antifungal activity was detected in 2-methyl-2-(4'-methylpentene-3'-yl)-5-keto-5,6,7,8-tetrahydronchromane.

Orig. alt. has: 20 formulas, 1 table.

ASSOCIATION: - Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences SSSR); Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S. Ordzhonikidze (All-Union Scientific Research Chemicopharmaceutical Institute)

SUBMITTED: 15Jan63

ENCL: 00

SUB CODE: LS, OC

NO REF ID: 004

OTHER: 003

JPRS

Card 2/2

Pershin, G.P.
USSR/Cultivated Plants - Technical, Oil and Sugar Plants.

M-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10877

Author : Protasov, P.V., Pershin, G.P.

Inst : Union Scientific-Research Cotton Institute.

Title : Early Fertilization of Cotton in the Absence of Irrigation

Orig Pub : Sots. s. kh. Uzbekistana, 1957, No 4, 15-17

Abstract : On the basis of field experiments conducted in 1955 by the Central Station of Fertilizers and Agricultural Soil Husbandry Union Scientific Research Cotton Institute under production conditions it was determined that when nitrogen in the N_{NO_3} form is added to the fertilization from the side of the row in the 3-4 leaf phase, without subsequent irrigation, it is used by the plants before the budding phase and assures both a good total yield and a good amount of cotton before the frosts. The fertilizer must be inserted

Card 1/2

4

USSR/Technical Crops. Oil Plants. Sugar Plants.

M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77742.

Author : Protasov, P.V.; Pershin, G.P.

Inst :

Title : Significance of Early Feedings on the Increase of Harvest of Raw Cotton and the Acceleration of its Ripening.

Orig Pub: Sots s.-kh. Uzbekistana, 1956, № 5, 31-34.

Abstract: Vegetation experiments conducted in 1954 by the Central Station of Fertilizers and Agricultural Soil Science of the All-Union Scientific Research Institute of Cotton Cultivation showed that one of the conditions which assures early ripening of cotton is the regulation of the nutrition of the plants from the very beginning of their

Card : 1/3

95

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240120006-5"

USSR/Technical Crops. Oil Plants. Sugar Plants.

M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77742.

vegetation. The high requirement of N in cotton appears in the period of development of 3-4 current leaves, and of P when they are 10-25 days old. Feeding of N at this time accelerated the blossoming of the cotton by 3 days, and the opening of the bolls occurred 4 days earlier than in those plants which obtained N only in the budding period. 90% of the bolls opened in the first case, in the second - 80%. Field experiments conducted in 1955, in the Twentieth Party Congress Kolkhoz of the Yangi-Yul' Rayon, showed that the transference of a small part of the yearly norm of N from the period of budding and blossoming to early feeding assured the increase of the total harvest by 1.2-2.2 c/ha. However,

Card : 2/3

PROTASOV, P.V., kand.sel'skokho₂yaystvennykh nauk; ZELENIN, N.N.; kand.-sel'skokho₂yaystvennykh nauk; PERSHIN, G.P., kand.sel'skokho₂yaystvennykh nauk

Waste and qualith deterioration of mineral fertilisers due to poor storage management. Zemledelie 24 no.6:51-54 Je '62.

(MIRA 15:11)
(Fertilizers and manures--Storage)

PERSHIN, G.P.

Nitrate movement in soils following the injection of fertilizers in
the absence of irrigation. Dokl. AN Uz. SSR no.1:51-54 '58.
(MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khlopkovodstva.
(Nitrate) (Soil physics)

PERSHIN, G. P., Cand of Agr-Sci --- (diss) "Effectiveness of Early
Nitrogen Feeding on Cotton Plants,"

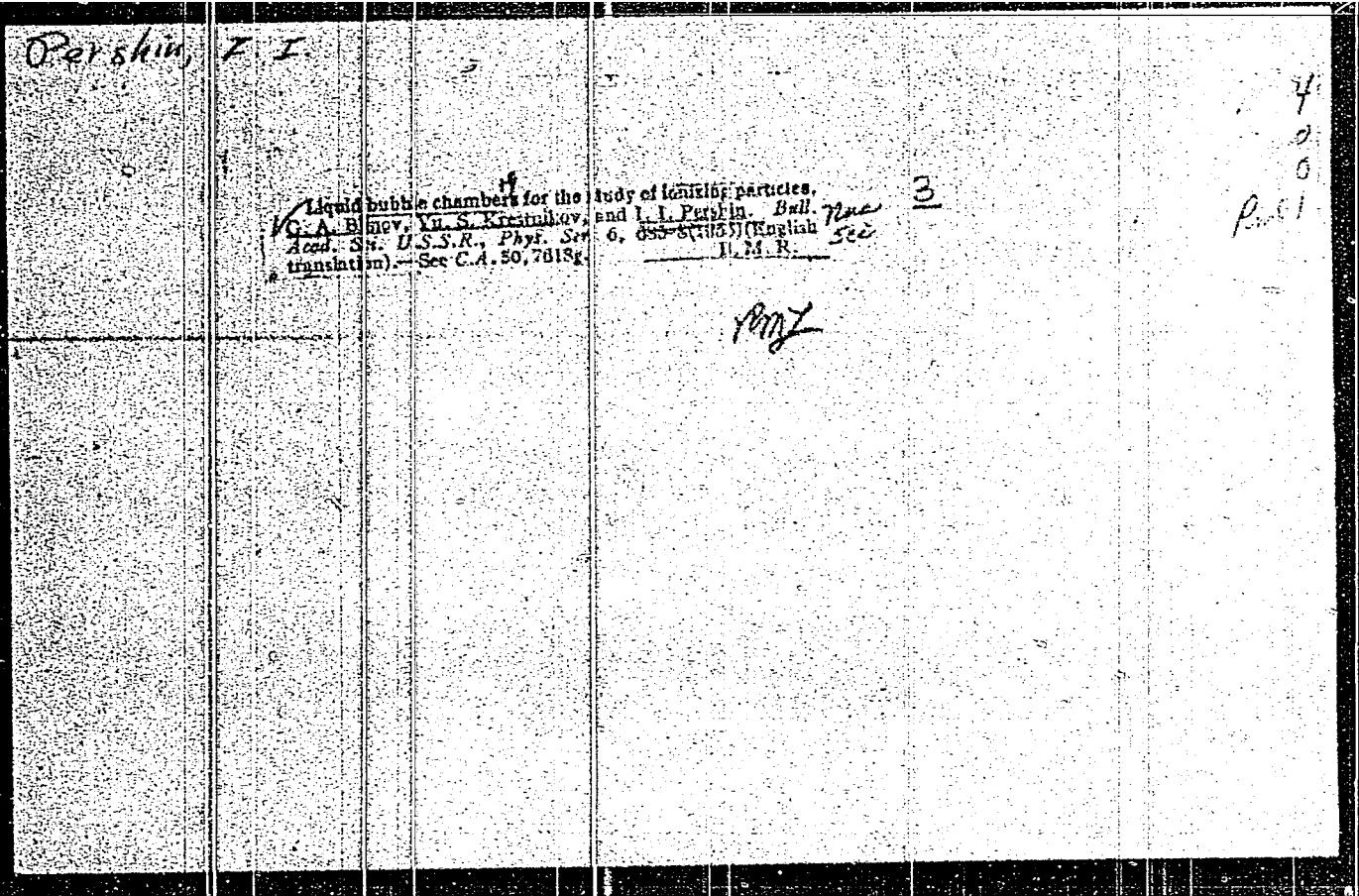
Stalinabad, 1959, 16 pp (Acad Sci Tadzhik SSR. Division of Agriculture
and Biological Sciences) (KL, 6-60, 124)

BUKHAROV, B.P., inzh.; KORMILOV, V.Ye., inzh.; PERSHIN, I.A., inzh.

Mechanization of conveying in television-set control
area. Mekh.i avtom.proizv. 16 no.10:16-18 O '62.
(MIRA 15:11)

(Conveying machinery)
(Television--Receivers And reception--Testing)

<i>Pershin, I.I.</i> USSR/ Physics	
Card 1/1	Pub. 22 - 12/63
Authors	Blinov, G.A.; Krestnikov, Yu. S.; and Pershin, I.I.
Title	Observation of tracks of ionizing particles
Periodical	Dok. AN SSSR 99/6, 929-930, Dec 21, 1954
Abstract	Experiments with molybdenum glass ampoule filled with propane ($C_3 H_8$) are described. The experiments were conducted to determine the possibilities of using the "bubble" cameras for photographing very-high energy ionizing particles which would provide a valuable means for the solution of various problems of nuclear physics. Six references (1952-1954). Photograms.
Institution:
Presented by:	Academician A.I. Alikhanov, November 4, 1954



BLINOV, G.A.; KRESTNIKOV, Yu.S.; PERSHIN, I.I.

Liquid bubble chambers for investigating ionizing particles.
Izv. AN SSSR. Ser. fiz. 19 no.6:758-760 N-D '55. (MLRA 9:4)

1. Akademiya nauk SSSR.
(Cosmic rays) (Nuclear physics)

PERSHIN, I.I. (Moscow)

New method of studying high-energy particles. Priroda 44 no.10:
79-81 O'55. (MLRA 8:12)
(Particles, Elementary)

Promulgated by:

INSTRUMENTATION: BUBBLE CHAMBER

"Propane Bubble Chamber for Use With Magnetic Field", by I.I. Pershin,
Pribory i Tekhnika Eksperimenta. No ., January-February 1957, pp 39-42.

Description of a two-liter propane bubble chamber, and of a system of illumination that makes it possible to place the chamber between the poles of a Wilson-chamber electromagnet. An analysis is made of the errors resulting from the multiple scattering in the propane when the sign of the particles is determined and when their momentum is measured, for tracks ranging from 5 to 25 cm and for a magnetic field intensity of 10,000 oersted.

Card 1/1

PERSHIN, T. I.

AUTHORS: Bovin, V.V., Krupchivskii, I.A., Pershin, T.I., Vinogradov, A.V.

TITLE: Measurement of Primary Ionization Using the Method of Mean Gap Length in Wilson Chambers and Diffusion Chambers.
(Izmerenie pervichnoy ionizatsii po metodu sredney doliny rosveta v kamere Vil'sona i v diffuzionnoy kamere)

PERIODICAL: Relyony i Tekhnika Eksperimenta, 1957, No. 3, p. 14-15
(and 1 plate) (USSR).

ABSTRACT: A detailed description is given of measurements of primary ionization by the method of mean gap length between drops in tracks of particles in Wilson and Diffusion Chambers. The accuracy obtained was $\pm 10\%$ in the case of the Wilson Chamber (considerable overlapping; track length 10 cm) and $\pm 15\%$ in the case of the diffusion chamber (track length 2 cm). The following precautions must be taken in order to obtain such high accuracy: 1. 100% efficiency of condensation on ions is necessary (Ref. 7). As a control on the efficiency of condensation particle tracks were separated into two parts by means of a field of 50 V/cm and a comparison of the number of particles

1 - 27/2

Measurement of Primary Ionization Using the Method of Mean Gain Length in Wilson Chambers and Diffusion Chambers.

down each of these components was carried out. Measurements were carried out on the positive component. Using this method, negative ions (in this case electrons) are separated out and this is useful since the efficiency of condensation on them is always less than 100% and can fluctuate considerably. Changes in the structure of tracks during separation into the two components (Ref. 6) did not occur since electro-negative admixtures were very small (less than 0.5% O₂). In order to guarantee 100% efficiency of condensation only the central part of the sensitive layer of the chamber was used. The temperature was stabilized.

2. In ionization measurements it is necessary to use those parts of tracks which do not overlap strong droplet backgrounds.

3. Good illumination of tracks is essential. The Wilson chamber was illuminated by two flash lamps type MOK-100 and photography was carried out at an angle of 45° to the light beam on a highly sensitive 35 mm film (reduction 1:10, f:20). The diffusion chamber was illuminated continuously with the mercury lamp CBLW-250. The photographic

Chart 2/3

Measurement of Primary Ionization Using the Method of Mean Free Length in Wilson Chambers and Diffusion Chambers.

was carried out at an angle of 30° to the light beam. The objective of the photographic camera was controlled by a coincidence scheme using Geiger-Muller tubes.

4. High contrast films and developers were used. Fine grain developers are particularly undesirable.

5. Optimum magnification must be used in examining the tracks. The authors have used a magnification of 100. The measured value of primary ionisation for argon recalculated into minimum ionisation are in agreement with the values obtained by G.W.McClure (Ref.10). Similar agreement is obtained for air and carbon dioxide. The following values were obtained for the primary ionisation:-

Air:	21 ± 1.5 ions/cm
Argon	30 ± 2 ions/cm
Carbon dioxide	28 ± 2.5 ions/cm.

There are 7 diagrams, 5 tables and 14 references, 1 Russian, 10 English, 1 French and 1 German.

SUBMITTED: October 14, 1958.

AVAILABLE: Library of Congress.

Cat. 3/3 1. Cloud chambers 2. Ionization-Measurement 3. Photography

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001240120006-5

PIGMENTED, 2

$\pi^+ - \mu^+ - e^+$

$\pi^- \rho^+$
 $\mu^- \gamma \mu$

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001240120006-5"

AUTHORS: Barmin, V. V., Kanavets, V. F., Morozov, B. V., Pershin, I. I. 56-34-4-7/60

TITLE The Angular Correlations of the $\pi^+ - \mu^+ - e^+$ - Decays in a Propane Bubble Chamber (Угловые корреляции $\pi^+ - \mu^+ - e^+$ - распадов в пропановой пузырьковой камере)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 4, pp. 830-835 (USSR)

ABSTRACT: This work investigates the angular distribution of the positrons in the $\pi^+ - \mu^+ - e^+$ -decay and determines a certain quantity "a" for propane for the entire energy spectrum of the positrons. This quantity a is contained in the term for the angular distribution of the positrons $dN = (1 + a \cos \theta)/4\pi$, which is valid in the case of non-conservation of the parity in the subsequent terms of the decay of the positive pion and of the positive myon. θ denotes the angle between the primary directions of motion of the positive myon and of the positron. For this work a propane bubble chamber with a volume of 2 liters was inserted into a beam of positive pions of the synchrocyclotron of the United Institute for Nuclear Research. The positive pions were produced by a beam of positive 650-MeV-protons in a

Card 1/3

The Angular Correlations of the $\pi^+ - \mu^+ - e^+$ Decays
in a Propane Bubble Chamber

56-34-4-7/60

polyethylene target. The traces of the particles in the chamber were taken by a stereoscopic camera. 2 possibilities for the determination of the angular distributions are shown. A diagram illustrates the angular distributions of the positrons for 2 series of takings with 4353 and 2408 cases. The asymmetry coefficient for the first series amounts to -0.163 ± 0.037 . The magnetic field of 1.8 gauss causes a low depolarisation of the positive myons. For the second series of takings $a = -0.214 \pm 0.05$. From this for both series the mean value $a = -0.19 \pm 0.03$ results. Both distributions agree well with the assumption of the positive myons in the $\pi^+ - \mu^+$ decay. Remarkable distortions in the shape of the angular distribution of the positrons can occur only as a consequence of overlooking of $\pi^+ - \mu^+ - e^+$ decays in the scanning of the film. The ratio $a_{\text{propane}}/a_{\text{carbon}}$ determines the degree of the depolarisation of the positive myons in propane. The coefficient of asymmetry for the elementary process, computed from the found mean experimental value of a , has the value -0.256 ± 0.033 . At the end the author thanks the Member of the Academy A.I. Ali-

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The Angular Correlations of the $\pi^+ - \mu^+ - e^+$ - Decays
in a Propane Bubble Chamber

56-34-4-7/6c

khanov for providing the theme and the discussion of the results, G.P. Yeliseyev and V.A. Lyubimov for valuable remarks, V.P. Dzhelepov for his collaboration at the accelerator, and V.G. Zaytseva, N.S. Konoplev, I.A. Sosunov, V.M. Golubchikov, V.N. Luzin for their participation in the evaluation of the experimental data. There are 4 figures and 9 references, 2 of which are Soviet.

SUBMITTED: November 15, 1957

1. Electrons--Scattering 2. Mesons--Decay 3. Electrons--Decay

Card 3/3

21(8)

AUTHORS: Barmin, V. V., Kanavets, V. P., Morozov, B. V., Tershin, I. I.

SOV/56-35-2-50/6c

TITLE: The Energy Dependence of the Asymmetry Coefficient in the
 $\pi^+ \rightarrow \mu^+ \rightarrow e^+$ Decays for the Low-Energy Part of the Positron Spectrum (Energeticheskaya zavisimost' koefitsiyenta asimmetrii v $\pi^+ \rightarrow \mu^+ \rightarrow e^+$ -raspadakh dlya nizkenergeticheskoy chasti spektra pozitronov)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 2(8), pp 542-544 (USSR)

ABSTRACT: Recently, the authors investigated the asymmetry coefficient a' for various parts of the energy spectrum of the protons. The energy of the positrons was measured according to the method of multiple scattering. First a formula is given for the distribution of the decay positrons; it takes the non-conservation of parity into account. The available experimental data essentially concern a constant figuring in the above-mentioned equation. The difference between the asymmetry coefficients a'_{II} and a'_{IV} (which were calculated according

Card 1/3

SOV/56-35-2-50, 60

The Energy Dependence of the Asymmetry Coefficient in the
 $\pi^+ \rightarrow \mu^+ \rightarrow e^+$ Decays for the Low-Energy Part of the Positron Spectrum

to the two-component and four-component theory, respectively) in the high-energy part of the spectrum is by far lower than in the low-energy part. The experiments of the investigation of the asymmetry coefficient for the low-energy part of the spectrum are especially advantageous for the verification of the variants of the theory of the $\mu \rightarrow e$ decay. The authors used the tracks of low-energy positrons of 10 000 $\pi \rightarrow \mu \rightarrow e$ decays (Ref 1). A table gives the values of a' (for the low-energy-part of the positron spectrum) for the energy intervals $0 - 0,2\epsilon$; $0 - 0,3\epsilon$; $0 - 0,4\epsilon$, where $\epsilon = E/E_{\max}$ denotes the energy of the positrons in units of the maximum energy of their spectrum. The angular distribution of the positrons taken into account in the above-mentioned table may be described adequately by the law $1 + a \cos \varphi$. The measured values of a' in the energy region < 20 MeV are an argument in favor of the positive sign of a' . The authors thank A. I. Alikhanov, Academician, who suggested this theme and discussed the results and also A. O. Vayzenberg for discussing some of the problems

Card 2/3

S07/54-35-2-56, 1c
The Energy Dependence of the Asymmetry Coefficient in the
 $\pi^+ \rightarrow \nu^+ \rightarrow e^+$ Decays for the Low-Energy Part of the Positron Spectrum

The authors also thank V. P. Dzhelepov who arranged the use of the π^+ -beam of the synchrocyclotron of the Ob'yedinennyj institute yadernykh issledovaniy (United Institute of Nuclear Research) and A. P. Birzgul for carrying out the calculations. There are 1 figure, 1 table, and 10 references, 4 of which are Soviet.

SUBMITTED: May 21, 1958

Card 2/3

SOV/120-59-4-7/50

AUTHORS: Pershin, I. I., Barnin, V. V., Kanavets, V. P., Morozov, B.V.
TITLE: Application of the Second Difference Method to the Measurement
of Multiple Scattering in a Propane Bubble Chamber

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 44-49
(USSR)

ABSTRACT: A detailed description is given of the application of the second difference method to the measurement of masses and energies of electrons from multiple scattering in the propane bubble chamber described in Ref 1 by the first of the present authors. The scattering constant for propane calculated from the Williams and Molier theories is compared with the experimental values obtained from measurements on μ -mesons and positrons. Assuming that the density of propane is 0.42 g/cm^3 , the calculated scattering constant for $\beta = 0.66$ was found to be $K_1 = 4.35 \text{ Mev.deg}/\sqrt{100 \mu}$ (Williams)

$K_1 = 4.47 \text{ Mev.deg}/\sqrt{100 \mu}$ (Molier).

For $\beta = 1.00$ the values were found to be:

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SOV/120-59-4-7/50

Application of the Second Difference Method to the Measurement of
Multiple Scattering in a Propane Bubble Chamber

$$K_1 = 4.19 \text{ Mev.deg}/\sqrt{100 \mu} \text{ (Williams)}$$

$$\text{and } K_1 = 4.31 \text{ Mev.deg}/\sqrt{100 \mu} \text{ (Molier).}$$

The experimental value for μ -mesons was found to be

$$K_\mu = 4.3 \pm 0.3 \text{ Mev.deg}/\sqrt{100 \mu} \text{ and for positrons}$$

$$K_e = 3.7 \pm 0.1 \text{ Mev.deg}/\sqrt{100 \mu}.$$

The errors are standard statistical deviations. The optimum cell size is obtained in the usual way and the η^+ mass was found to be $290 \pm 24 m_e$, using the above value of K_μ .

The second difference method has been used for determining the positron energies in $(\pi \mu e)^+$ decays obtained with the propane chamber. Measurements carried out over a long period of time have shown that the method may be used to measure

Card 2/3

SOV/120-59-4-7/50

Application of the Second Difference Method to the Measurement of
Multiple Scattering in a Propane Bubble Chamber

positron energies in the range 5-55 Mev. There are 4 figures
and 17 references, of which 5 are Soviet (2 are translations
from English), 1 is Swedish, 1 is German and the rest are
English.

SUBMITTED: July 18, 1958.

Card 3/3

Pershin, I. I.
24,6810S/120/60/000/03/005/055
E032/E514AUTHORS: Pershin, I. I. and Golubchikov, V. M.TITLE: Determination of Particle Masses by Multiple Scattering
and Range Measurements in a Propane Bubble Chamber /9

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No 3, pp 26-28

ABSTRACT: The present paper is concerned with the application of
the constant sagitta method, which has been extensively
used with nuclear emulsions, to measurements on
propane bubble chamber photographs. It is shown that
the constant sagitta method can be used to measure the
mass of particles coming to rest in the propane bubble
chamber to an accuracy of better than 25%. The method
has been used on single π -meson tracks 25 cm long. It
is thus possible to distinguish between π -mesons,
 K -mesons, and protons coming to rest in the chamber.
A π -meson mass in good agreement with recent determina-
tion is obtained if the scattering constant is assumedCard 1/2 to be equal to $3.9 \text{ MeV} \cdot \text{deg}/\sqrt{100 \mu}$. *H*

81980

S/120/60/000/03/005/055
E032/E514

Determination of Particle Masses by Multiple Scattering and
Range Measurements in a Propane Bubble Chamber

There are 2 tables and 7 references, 1 of which is
Soviet and 6 English.

44

SUBMITTED: May 19, 1959

Card 2/2

86893

S/056/60/039/005/003, 05
B029/B077

24.6900

AUTHORS: Barmin, V. V., Krestnikov, Yu. S., Pershin, I. I.
Rumyantseva, V. P., Shalamov, Ya. Ya., Shebanov, V. A.TITLE: The Asymmetry in the Decay of Λ^0 Hyperons Produced by
Negative Pions With a Momentum of 2.8 Bev/c and Observed
in a Freon Bubble ChamberPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 5(11), pp. 1229-1231TEXT: The distribution of decay products of Λ^0 particles with respect to
their production level is described by $W(\xi) d\xi \sim (1 + \alpha \bar{P} \xi) d\xi$; the asym-
metry coefficient α denotes the degree of non-conservation of parity
during the decay of Λ^0 particles; \bar{P} denotes the average polarization of
the hyperon over all directions of Λ^0 , and the following relation isvalid too: $\vec{\xi} = [\vec{p}_{\pi^{\text{prim}}} \vec{p}_{\Lambda}] \vec{p}_{\pi^{\text{decay}}}$. \vec{p}_{Λ} , $\vec{p}_{\pi^{\text{prim}}}$, and $\vec{p}_{\pi^{\text{decay}}}$ are the
unit vectors of the momenta of the Λ^0 particle, the primary and the "decay
pions". In general, $\alpha \bar{P}$ is calculated from the formula $\alpha \bar{P} = 2(N_{\uparrow} - N_{\downarrow}) / (N_{\uparrow} + N_{\downarrow})$.

Card 1/4

86893

The Asymmetry in the Decay of Δ^0 Hyperons
Produced by Negative Pions With a Momentum of S/056/60/039/005/003/05
2.8 Bev/c and Observed in a Freon Bubble Chamber B029/B077

N_{\uparrow} and N_{\downarrow} denote the number of pions leaving the production level in an upward or downward direction. The values of α_P at energies above 1 Bev permit conclusions about the polarization of Δ^0 hyperons produced at these energies. Therefore, the authors investigated the asymmetry in the decay of Δ^0 hyperons which were produced on light nuclei by negative pions with a momentum of (2.8 ± 0.3) Bev/c in a 17-liter Freon bubble chamber without a magnetic field. The measurements were made with a beam of negative mesons of the proton synchrotron of OIYAI (Joint Institute of Nuclear Research). For negative pions with a momentum of 2.8 Bev/c, Δ^0 particles were produced mainly according to the reaction $\pi^- + N \rightarrow \Delta^0 + K + n\pi$, and a preliminary estimate yielded $\bar{n} \approx 1.5$. The first examination of about 60,000 stereophotos showed about 1200 "forks" at the end of pion tracks. 183 Δ^0 decays were selected, of which 165 refer to the production of Δ^0 particles by Freon (that is, by nuclei of C, F, Cl). 18 cases refer to production by a propane-xenon mixture, that is, by nuclei of H, C, Xe. The average momentum of the Δ^0 particles used for the measurement was 650 Mev/c in the laboratory system. Results of α_P measurement:

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The Asymmetry in the Decay of Λ^0 Hyperons
 Produced by Negative Pions With a Momentum of
 2.8 Bev/c and Observed in a Freon Bubble Chamber

S/056/60/033/005, 006, 007
 B029/B077

Filling material of the chamber	Total number of Λ^0 decays	Number of negative pions produced by the decay of Λ^0 hyperon emitted				α_F
		upward	downward	on the produ- cing level		
Freon	165	67	95	3	-0.3426 .16	X
Xenon-propane	18	9	8	1	+0.1250 .47	V
Total number of cases	183	76	103	4	-0.3050 .15	

The systematic errors are below 20%. The value of α_F is most likely negative during the decay of hyperons which gives rise to 3-Bev negative pions. This could be caused by the change of sign of the polarization during the transition from 1 Bev to higher energies of the negative pions produced. But the statistical accuracy of this investigation is not adequate for a definite statement. The authors thank A. I. Alikhanov, A. G. Meshkovskiy.

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The Asymmetry in the Decay of Δ^0 Hyperons
Produced by Negative Pions With a Momentum of
2.8 Bev/c and Observed in a Freon Bubble Chamber

S/056/60/039/005/001/051
B029/B077

and I. Yu. Kobzarev for a discussion of the results obtained, V I Veksler
for making possible the experiments with the proton synchrocyclotron in
Dubna, the operators of the synchrocyclotron, and several laboratory
assistants of OIYAI. There are 1 table and 8 references: 2 Soviet and
6 US.

SUBMITTED: July 2, 1960

Card 4/4

PERSHIN, I.I.

Increasing the efficiency of a gas-discharge spark valve. Prib.
i tekhn. eksp. 7 no.3:52-54 My-Je '62. (MIRA 16:7)
(Electric discharges through gases)

PERSHIN, I.I.[Pershyn, I.I.]

~~New method of studying high-energy particles. Dos. such. fiz.~~
no.5:145-149 '57.
(MIRA 16:6)

(Particles(Nuclear physics))

26 23/

S/120/62/000/003/008/048
39119
E039/E135

AUTHOR: Pershin, I.I.

TITLE: A high efficiency gas discharge spark valve

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 52-54

TEXT: The construction and operation of this valve is described briefly and its performance measured. The principle of operation is to utilize the sudden increase of pressure in a gas when a spark discharge is initiated to open the flap of the valve. There are eight discharge chambers, any number of which can be fired simultaneously by making the appropriate connections. It is shown that the distance L which the valve flap opens is approximately linearly dependent on the number of discharge chambers N used up to $N = 4$, after which it levels off. For $N = 4$, $L = 3.2$ mm; and when $N = 6$ to 8, $L \approx 3.4$ mm. The 'dead' time of the valve when using 4 discharge chambers and 200 joules stored on the condensers ($2 \mu F$ at 14 kV) is 0.15 millisecs. The outlet is 25 mm in diameter and the valve can be used at pressures up to 30 atm. There are 3 figures and 1 table. SUBMITTED: June 21, 1961.

Card 1/1

PERSHIN, I.I.; GOLUBCHIKOV, V.M.

Determination of the particle mass from measurements of multiple scattering and range in a propane bubble chamber. Prib. i tekhn. eksp. no. 3:26-28 My-Je '60. (MIRA 14:10)

(Particles (Nuclear physics))
(Ionization chambers)

PERSHIN, I.I.

Physical measurements on photographs of particle tracks in bubble chambers. Usp.fiz.nauk 73 no.3:559-581 Mr '61. (MIRA 14:6)
(Photography, Particle track) (Bubble chambers)

BARMIN, V.V.; KRESTNIKOV, Yu.S.; FERSHIN, I.I.; RUMYANTSEVA, V.P.; SHALAMOV,
Ya.Ya.; SHEBANOV, V.A.

Asymmetry in the decay of Λ^0 -hyperons produced by 2.8 Bev./c
 π^- -mesons according to observations in a freon bubble chamber.
Zhur.eksp.i teor.fiz. 39 no.5:1229-1231 N '60. (MIRA 14:4)

(Mesons—Decay)

21230

S/053/61/073/003/004/004
B125/B201

24.6810 (1191, 1138, 1090)

AUTHOR: Pershin, I. I.

TITLE: Physical measurements by photography of particle paths
in bubble chambers

PERIODICAL: Uspekhi fizicheskikh nauk, v. 73, no. 3, 1961, 559-581

TEXT: The present paper deals with the results of the development of photographic measurement methods for such physical quantities as are required for the identification of particles. Photographing is done on particle paths in bubble chambers, and the problems include the choice of operational procedures for the bubble chambers. Reference is made to the survey presented in a paper by D. A. Glaser published in the manual of physics. The present survey is composed of the following chapters:
1) Characteristic properties of bubble chambers. Material used in bubble chambers. Table I gives a comparative list of the characteristic properties of the chambers and the photoemulsions used for the detection of the paths of nuclear particles at a track length of 50 cm. Table II

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Physical measurements by...

S/053/61/073/003/004/004
B125/B201 X

gives the properties, of importance in measurements, of the liquids used for filling the bubble chambers. Table III gives the ranges of the particles in the liquids used most for the filling of the chambers. Data relative to a chamber with liquid hydrogen are taken from G. Clark and V. Dil (Abstracter's Note: The correct spelling of these names is not detectable in the Cyrillic text). 2. Measurement of the coordinates in the bubble chambers: Relationship between the particle path in the bubble chamber and its photographic picture. Distortions in the bubble chambers, the stereoscopy of bubble chambers, the projective methods of the processing of particle paths. 3. Measurement of particle velocity: Conditions required for the measurement of particle velocities in the bubble chamber. The following must be observed in this connection: The density of the bubbles along the path of a particle is strongly dependent upon the pressure and also upon the "overheating degree" of the liquid. The bubble density directly observed on the pictures is generally not in relation with the bubble density observed in the chamber itself on the passage of the particle, this being due to the conglomeration of a part of closely adjoining particles. Only tracks caused by fine

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Physical measurements by...

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S/053/61/073/003/004/004
B125/B201

particles are suited for the measurement of the particle velocity. Only then the bubble distribution due to the accidental nature of the ionization event is not distorted by interference phenomena between the bubbles. Consideration of the overlapping of the bubbles in the picture. In the current practice, one makes measurements by the method of the mean length of the mean interspace (prosvet) for very dense paths and by the method of the number of interspaces for paths of particles with high bubble density. Experimental relationship between the density of the bubbles along the path of a particle and its velocity. Determination of the momentum of a particle from the measured value of the bubble density.

Thus, e.g. $(dE/dx)_{Q<\eta} \approx c/\beta^{1.83}$ holds for propane, with $\eta \geq 70$ kev being presupposed for propane. 4. Measurement of the momentum of particles in bubble chambers arranged in a magnetic field. Table IV shows the relative error of the momentum $(\Delta p/p)_s$ of the particles and the relative error

Δ sign when determining their sign in a propane chamber, at a path length of 5 cm and 25 m for particles with different masses. 5. Measurements

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S/053/61/073/003/004/004

B125/B201

Physical measurements by...

based upon the use of multiple scattering of particles: Measurements by the method of cells with constant lengths. Measurements by the method of variable cells. Determination of the momentum of a particle by the measurement of the curvature of a path, caused by the joint action of the magnetic field and multiple scattering. The following is a comparison of the characteristic properties of some liquids of bubble chambers and the nuclear photoemulsion:

Liquid	Density of liquid under operational conditions	Braking power versus Al	Length of nuclear interaction 'cm'	Coefficient of multiple scattering
propane	0.43	0.22	97	1.06
xenon	2.3	0.62	63	7.15
WF ₆	2.4	0.72	42	6.94
SnCl ₄	1.4	0.44	77	4.43
nuclear photo-emulsion	3.8	0.98	26	7.64

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B125/B201

Physical measurements by...

The determination of the scattering constant by E. I. Williams' formulas is mentioned. 6. Program problems of the methods of measurements with bubble chambers. By increasing the chamber dimensions one not only attains an increase of efficiency in recording rare events, but of the measurement accuracy as well. Thus, new possibilities arise for the measurement of different characteristic parameters of physical processes. E. g., statistic measurements of the lifetimes of unstable particles become possible. With the aid of chambers filled with heavy liquids it is possible to measure directly the characteristic quantities related to the departure of gamma quanta, the parameters of cascade processes, etc. The information stored in hundreds of thousands of particle paths photographed in bubble chambers, makes it possible, in principle, to work out automatic devices for the checking and interpretation of particle paths. Recently, success has been achieved in the development of chambers with scintillating additions to the operational liquid. There are 10 figures, 5 tables, and 74 references: 24 Soviet-bloc and 50 non-Soviet-bloc. The last two references to English-language publications read as follows: Y. Goldschmidt-Clermont, Proc. Int. Conf. on High-Energy Accelerators

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S/053/61/073/003/004/004
B125/B201

X

Physical measurements by...

and Instrum., Cern, 1959, page 523. B. Hahn, G. Riepe, A. W. Knudsen,
Ref. Sci. Instrum. 30, 654 (1959)

Card 6/12

PERSHILK, KOTOV, V.P., otvetstvennyy red.; GOLUBYATNIKOVA, G.S., red.
izd-va; OSVAL'D, E.Ya., red. izd-va; SHKLYAR, S.Ya., tekhn. red.

[How to lower the net cost of coal at the mine] Kak snizit' sebe-
stoimost' uglia na uchastke shakhty. Moskva, Ugletekhizdat, 1958.
(MIRA 11:7)
18 p. (Moscow Basin--Coal mines and mining)

PERSHINA, L. I., CAND TECH SCI, "ROLE AND SIGNIFICANCE
OF MECHANOCHEMICAL PROCESSES IN CHANGES OF QUALITATIVE
PROPERTIES OF FISH IN REFRIGERATION TREATMENT AND STORAGE."
LENINGRAD, 1961. (MIN OF HIGHER AND SEC SPEC ED RSFSR, KA-
LENINGRAD TECHNICAL INST OF THE FISH INDUSTRY AND ECONOMY).
(KL, 3-61, 219).

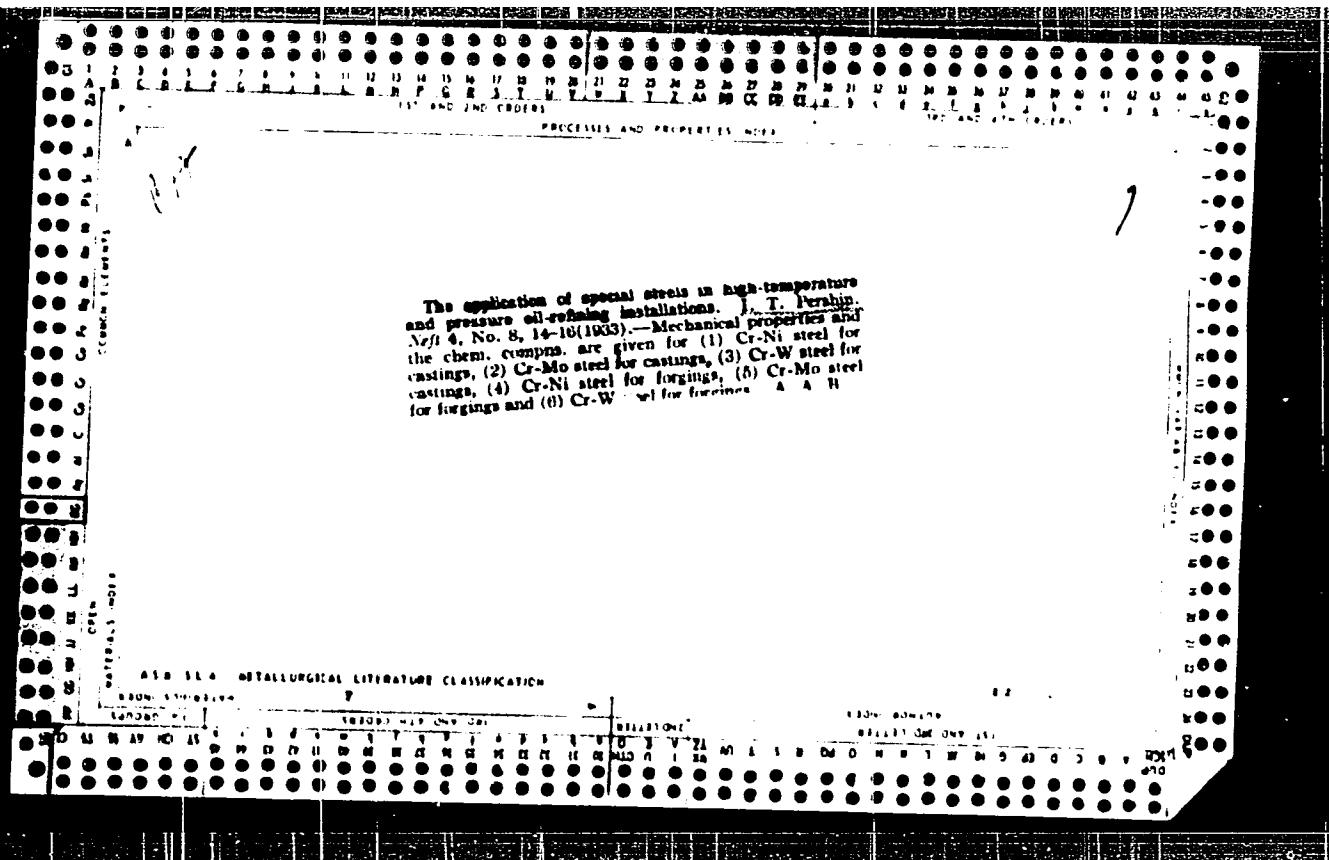
PERSHIN, I.T.

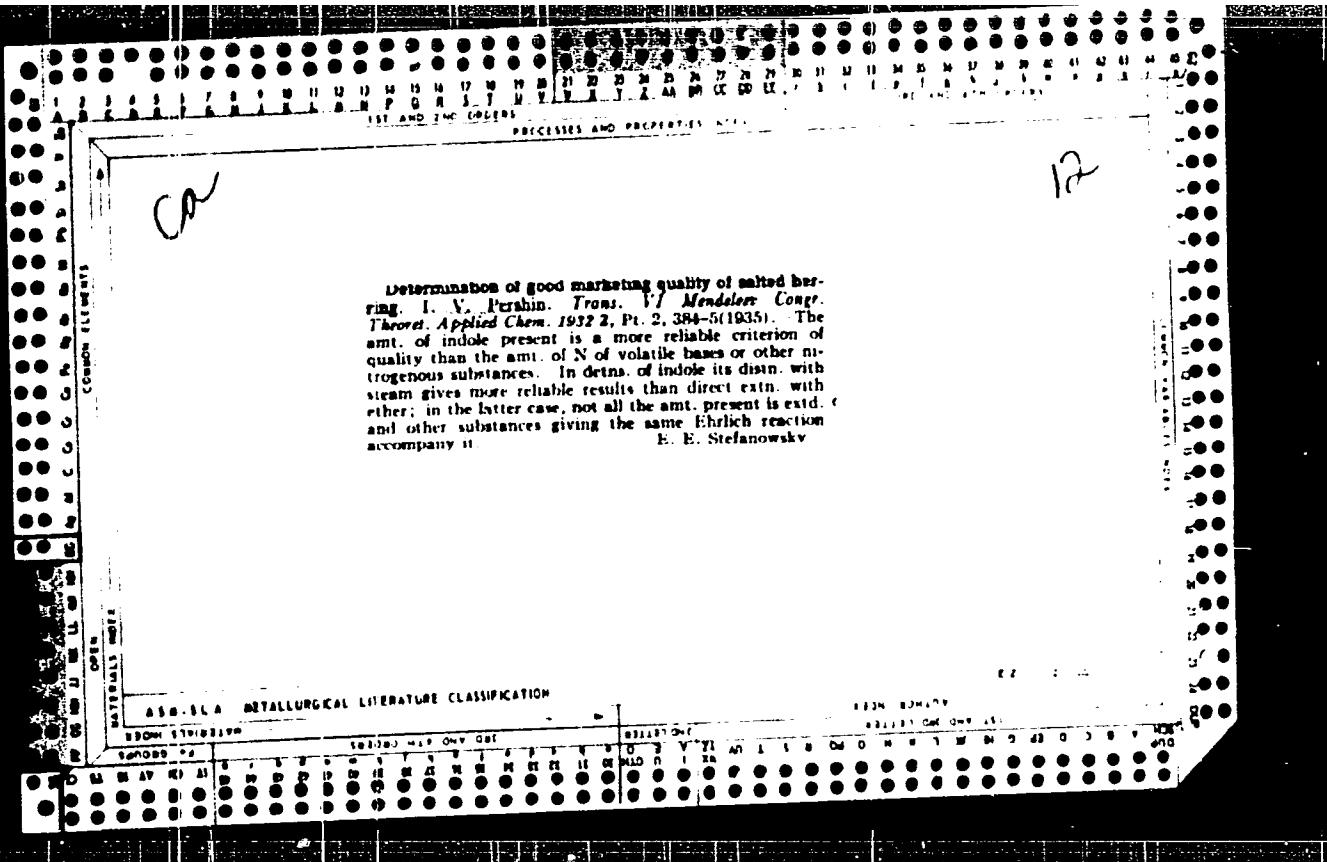
Studying the operation of automated centrifugal pumps on a vertical pressure line. Naučn. trudy Nark. inst. radiofiz., i gor. elektromekh. no.44:56-26. '62. (MIR 1974)

PERSHIN, I.T., dotsent, kand.tekhn.nauk

Automatic control of the operation of horizontal centrifugal
pumps installed in mines. Nauch. trudy MGI no.23:179-193
'58. (MIRA 15:12)

(Mine pumps)
(Automatic control)



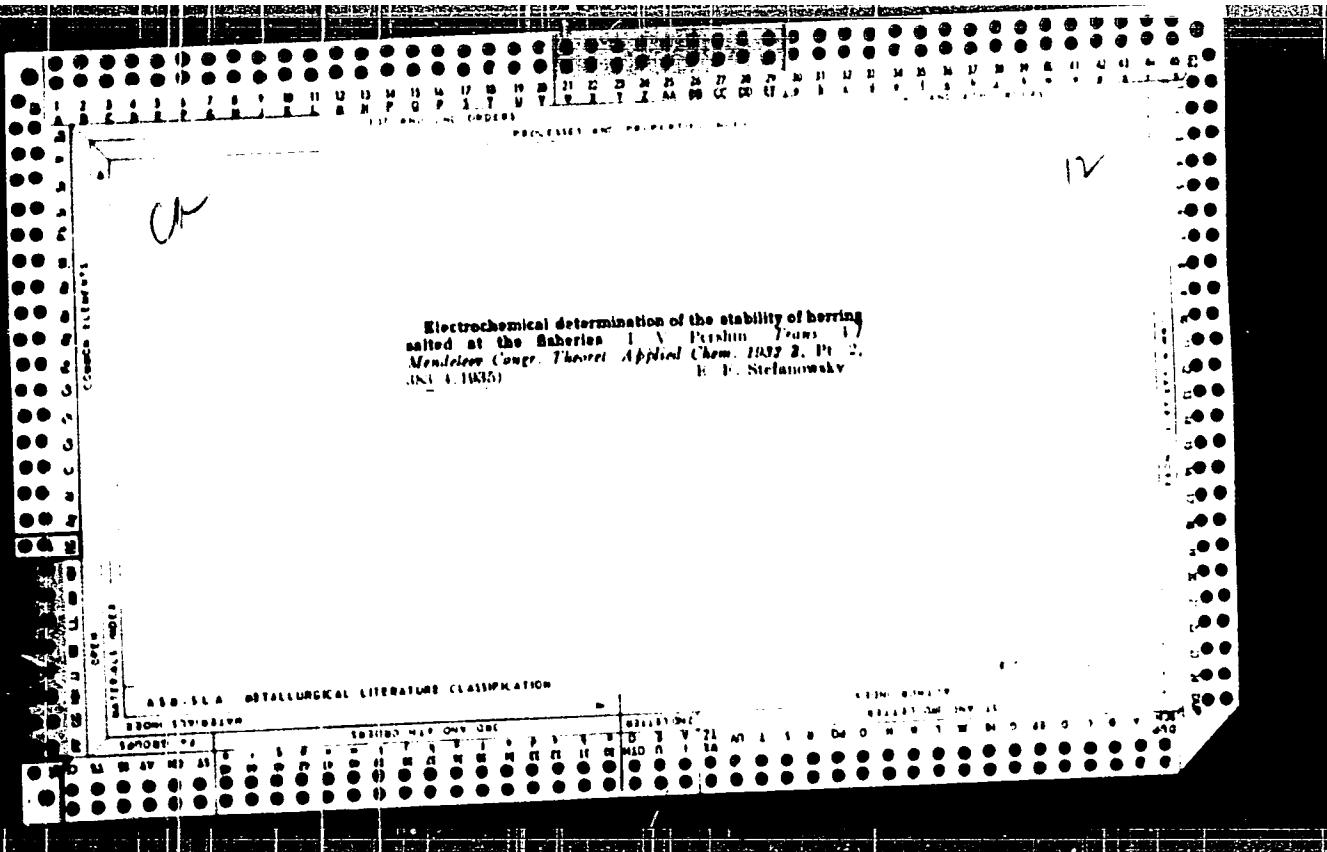


ZOL'NIKOV, S.M.; ALEKSANDROV, V.M.; MEL'NIKOV, Yu.L.; TIKHOVA, N.A.;
PIRSHIN, I.F.

Prophylaxis and therapy in hypoxic states developing during
operations on the heart under anesthesia. Trudy 1-go MM 33:
403-408 '64.
(MIRA 18:3)

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Equipment of high-pressure and high-temperature lines of oil-treating units
(cracking coils and tube coils). I. V. Perchin. Neftegaz. Khronika 24, No. 4
(1933).—Russian tentative standards for the following parts are given: pipes, flanges,
banded fittings, forged fittings, flange armature and forged armature.

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

PERSHIN, M., inzhener-polkovnik; LEBEDEV, K., mayor

Stabilizing saturated soils. Tyl i snab.Sov.Voor.Sil 21 no.3:79-82
Mr '61. (MIRA 14:6)
(Soil stabilization)

PERSHIN, Mikhail Alekseyevich; MIGUKIN, Aleksandr Timofeyevich;
KIM, Leonid Vasil'yevich; TSYBAYEV, Igor' Gennad'yevich;
MARKUS, E.M., red.; ALABYSHEVA, N.A., red.izd-va; GVIRTS,
V.L., tekhn. red.

[Movable tool-repair shops on city-block construction sites]
Perevodnye instrumental'no-remontnye masterskie na ob"-
ektakh kvartal'noi zastroiki; opyt raboty Glavleningradstroia.
Leningrad, 1963. 15 p. (Leningradskii dom nauchno-tehniches-
koi propagandy. Seriya: Stroitel'noe proizvodstvo, no.5)
(MIRA 16:12)
(Leningrad--Construction equipment--Maintenance and repair)

18 (5)

SCV/128-59-11-23/24

AUTHORS: Barinov, P.G., Pershin, M.R., Kovalenko, G.D. and
Gibenkov, N.Ye., Engineers

TITLE: History of the Use of Oxygen During Cast Iron Melting

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 11, p 3 of cover (USSR)

ABSTRACT: The authors state: Priority in this field belongs to the Soviet Union. In 1932, at the former Khar'kov Locomotive Plant, on the initiative of A.F. Bondarenko, the cupola blast enriched with oxygen was for the first time applied. Since 1949, the Plant has used the same method. Efficiency of cupolas was increased by 20%; temperature of cast iron was elevated to 1400°-1420°C; coke-consumption - cut down by 15%.

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CIA-RDP86-00513R001240120006-5

PERSHIN, M.V., inzhener.

Demonstration building. Biul. stroi. tekhn. 13 no.6:1-5
Je '56.

(MLRA 9:9)

(Building)

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CIA-RDP86-00513R001240120006-5"

PERSHIN, M.N., kand.tekhn.nauk.

Stabilizing gravel with cement at freezing temperatures.
Avt.dor. 20 no.11(181):19-21 N '57. (MIRA 10:12)
(Road construction--Cold weather conditions)

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CIA-RDP86-00513R001240120006-5

PERSHIN, M.P.

"On Aptekarskiy Island" by L.S.Ganichev. Reviewed by M.P.Pershin.
Med. pron. 12 no.1:63-64 Ja '58. (MIRA 11:2)
(MEDICAL INSTRUMENTS AND APPARATUS)
(GANICHESV, L.S.)

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CIA-RDP86-00513R001240120006-5"